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Reply to Office Action dated 27, 2006

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Listing of Claims

1. (Currently Amended) A radio frequency plasma display panel, comprising:
a plurality of discharge cells including a plurality of first electrode lines and a plurality of second electrode lines, being formed in such a manner that they cross each other with ~~having~~ a dielectric layer therebetween, for causing a discharge; and
a first ~~[[an]]~~ auxiliary electrode formed at ~~[[any]]~~ at least one of the first or ~~[[and]]~~ second electrode lines for each discharge cell, ~~to arrange the first and second electrode lines in parallel to each other within the discharge cell~~ wherein the first auxiliary electrode is directly connected to at least one of the first or second electrode lines.
2. (Currently Amended) The radio frequency plasma display panel as claimed in claim 1, wherein the first electrode lines are ~~is an~~ address electrodes formed on a substrate, and the second electrode lines are ~~is a~~ scanning electrodes formed on the dielectric layer covering the address electrodes.
3. (Currently Amended) The radio frequency plasma display panel as claimed in claim 2, wherein the first auxiliary electrode is located on the address electrode to be perpendicular to the address electrode at a position adjacent to an intersection between the address electrode and the scanning electrode, and is arranged ~~at a position~~ parallel to the scanning electrode.

4. (Currently Amended) The radio frequency plasma display panel as claimed in claim 2, wherein the first auxiliary electrode ~~is includes a first auxiliary electrode~~ located on the address electrode to be perpendicular to the address electrode at a position adjacent to an intersection between the address electrode and the scanning electrode and is arranged ~~at a position~~ parallel to the scanning electrode; and a second auxiliary electrode is located on the scanning electrode and protrudes ~~protruded~~ toward the first auxiliary electrode therefrom.

5. (Currently Amended) The radio frequency plasma display panel as claimed in claim 2, wherein the dielectric layer includes:

a first dielectric layer formed between the address electrode and the scanning electrode in each discharge cell; and

a second dielectric layer covering ~~covered on~~ the first auxiliary electrode and the scanning electrode.

6. (Currently Amended) The radio frequency plasma display panel as claimed in claim 1, further comprising:

a first substrate provided with the first and second electrode lines and the first auxiliary electrode;

a radio frequency electrode coupled with a radio frequency signal with a higher frequency than a predetermined ~~commercial~~ alternating current voltage to cause a radio

frequency discharge along with at least ~~any~~ one of the first or ~~and~~ second electrode ~~electrodes~~ lines;

a second substrate provided with the radio frequency electrode and opposed to the first substrate;

a barrier rib formed perpendicularly between the first and second substrates; and

a fluorescent material coated on the barrier rib.

7. (Currently Amended) A method of fabricating a radio frequency plasma display panel, comprising ~~the steps of~~:

forming a plurality of first electrode lines on a substrate;

forming a first auxiliary electrode directly connected to one of ~~protruded from~~ the first electrode lines ~~space with~~ having a desired distance therebetween;

~~entirely~~ coating a first dielectric material to cover the first auxiliary electrode and said one of the first electrode lines; and

forming a plurality of second electrode lines perpendicular to the first electrode lines.

8. (Currently Amended) The method as claimed in claim 7, further comprising ~~the steps of~~:

forming a second auxiliary electrode protruded toward the first auxiliary electrode from a respective one of the second electrode lines;

~~entirely~~ coating a second dielectric material on the first dielectric material to cover said one of the second electrode lines and the second auxiliary electrode;
forming a protective film on the second dielectric material;
forming a barrier rib on the protective film; and
coating a fluorescent material on the barrier rib.

9. (Currently Amended) The method as claimed in claim 8, wherein at least said one of the second electrode lines and the second auxiliary electrode are simultaneously patterned using a ~~[[the]]~~ same mask pattern.

10. (Currently Amended) A driving apparatus for a radio frequency plasma display having discharge cells, each of which has a scanning electrode electrodes and an address electrode electrodes crossing each other with ~~having~~ a dielectric layer therebetween on a first substrate to cause a writing discharge, ~~arranged in a matrix type~~, and ~~a including~~ radio frequency electrode electrodes formed on a second substrate opposed to the first substrate to cause a radio frequency sustaining discharge along with the scanning electrode electrodes, said driving apparatus comprising:

a first ~~an~~ auxiliary electrode directly connected to ~~provided at any~~ at least one of the scanning electrode or ~~[[and]]~~ the address electrode for each discharge cell ~~to position the scanning electrode and the address electrode in parallel to each other within the discharge cell;~~

a radio frequency signal driver for applying a radio frequency signal having a higher frequency than a predetermined commercial alternating current voltage to the radio frequency electrode in each discharge cell ~~the scanning electrode and the address electrode,~~ respectively; and

a pulse signal driver for applying a scanning pulse and a data pulse having a frequency of the predetermined commercial alternating current voltage to the scanning electrode and the address electrode, respectively.

11. (Currently Amended) The driving apparatus as claimed in claim 10, wherein the radio frequency signal driver includes:

a high pass filter connected to the scanning electrode to extract the ~~extracting a~~ radio frequency signal having a higher frequency than the predetermined commercial alternating current voltage from a signal inputted from the scanning electrode; and

a sustaining driver for applying the radio frequency signal to the radio frequency electrode.

12. (Original) The driving apparatus as claimed in claim 10, wherein the pulse signal driver includes:

a first low pass filter connected to the address electrode;

a second low pass filter connected to the scanning electrode; and

an address driver, being commonly connected to the first and second low pass filters, for producing a pulse signal required for the writing discharge to control the writing discharge.

13. (Currently Amended) The driving apparatus as claimed in claim 10, wherein the first auxiliary electrode is located on the address electrode to be perpendicular to the address electrode at a position adjacent to an intersection between the address electrode and the scanning electrode, and is arranged ~~at a position~~ parallel to the scanning electrode.

14. (Currently Amended) The driving apparatus as claimed in claim 10, wherein the first auxiliary electrode ~~is includes first auxiliary electrode~~ located on the address electrode to be perpendicular to the address electrode at a position adjacent to an intersection between the address electrode and the scanning electrode and arranged ~~at a position~~ parallel to the scanning electrode; and a second auxiliary electrode is located on the scanning electrode and protrudes ~~protruded~~ toward the first auxiliary electrode therefrom.

15. (Currently Amended) A radio frequency plasma display panel, comprising:
a plurality of discharge cells, each including a first electrode and a second electrode, being formed on a first substrate in such a manner that they cross each other with ~~having~~ a dielectric layer therebetween, for causing an address discharge; and

a radio frequency electrode, arranged in parallel to the second electrode, formed on a second ~~another~~ substrate opposite to the first substrate, for causing a radio frequency discharge; and

an auxiliary electrode directly ~~electrically~~ connected to the first electrode formed on the substrate, and formed in parallel to and on substantially the same plane as the second electrode via the dielectric layer.

16. (Currently Amended) The radio frequency plasma display panel as claimed in claim 1, wherein the second electrode line constitutes a second auxiliary electrode in such a manner that it is protruded toward the first auxiliary electrode.

17. (Canceled)

18. (Currently Amended) A discharge cell, comprising:
a first electrode;
a second electrode that crosses the first electrode;
a dielectric layer positioned between the first and second electrodes; and
at least one auxiliary electrode directly connected ~~coupled to one of the first and second electrodes~~ electrode and on substantially a same plane as the second electrode via the dielectric layer.

19. (Previously Presented) The discharge cell of claim 18, wherein the first electrode comprises an address electrode and the second electrode comprises a scanning electrode.

20. (Canceled)

21. (Previously Presented) The discharge cell of claim 18 [[20]], wherein the at least one auxiliary electrode further comprises a second auxiliary electrode connected to the second electrode.

22. (Canceled)

23. (Previously Presented) The discharge cell of claim 18, further comprising a radio frequency electrode positioned and configured to cooperate with one of the first and second electrodes to cause a radio frequency discharge.

24. (Currently Amended) A radio frequency plasma display panel comprising the discharge cell of claim 18 [[15]].

25. (Currently Amended) A plasma display panel, comprising:
a first substrate;

a second substrate;
a plurality of discharge cells formed between the first and second substrate;
a plurality of first electrodes formed on the second substrate in a first direction;
a plurality of second electrodes formed in a second direction so as to cross the plurality of first electrodes; [[and]]

a plurality of third electrodes associated with each of the first electrodes, wherein each of the plurality of third electrodes has [[have]] a predetermined width and a predetermined length that runs in a direction substantially parallel to the second direction; and

a plurality of fourth electrodes associated with each of the second electrodes, wherein each of the plurality of fourth electrodes has a predetermined width and predetermined length that runs in a direction substantially parallel to the second direction.

26. (Previously Presented) The plasma display panel of claim 25, wherein the plurality of third electrodes are electrically coupled to the plurality of first electrodes.

27. (Previously Presented) The plasma display panel of claim 26, wherein the plurality of third electrodes are electrically connected to the plurality of first electrodes.

28. (Canceled)

29. (Currently Amended) The plasma display panel of claim 25 [[28]], wherein the plurality of fourth electrodes are electrically coupled to the plurality of second electrodes.

30. (Previously Presented) The plasma display panel of claim 29, wherein the plurality of fourth electrodes are electrically connected to the plurality of second electrodes.

31. (Currently Amended) The plasma display panel of claim 25, wherein the plurality of fourth electrodes are further comprising a plurality of radio frequency electrodes positioned and configured to cooperate with the plurality of first electrodes or the plurality of second electrodes to cause a radio frequency discharge.

32. (New) The method as claimed in claim 7, wherein the first dielectric material entirely covers the first auxiliary electrode and said one of the first electrode lines.

33. (New) The method as claimed in claim 8, wherein the second dielectric material entirely covers said one of the second electrode lines and the second auxiliary electrode.

34. (New) The discharge cell of claim 21, wherein the second auxiliary electrode is directly connected to the second electrode and protrudes toward the auxiliary electrode.